

Waitl *et al.*
Appl. No.: 09/754,043

The present invention relates to a system which provides a visual feedback regarding body movements of a person. This is facilitated by presenting a live image of a person onto a screen depicting markings as to ideal body positions. The markings may include characteristic points, lines and contours of the person depicted on the screen. These 'points' are automatically set and updated depending upon the person or part of the person for which feedback is sought. Scale of the markings and 'points' is thereby automatically adjusted based on feedback from detecting an image of the person or close up. This is effected by insertion means 5 *et seq.* (see Specification e.g. page 10, lines 19-37). Not only can the insertion means insert 'points', it can also insert markers serving for positioning or orientation of the person (see Specification e.g. page 11, lines 1-13). In addition, the insertion means is able to adjust the location of the 'points' with respect to a desired movement speed and the like (see Specification e.g. page 11, lines 13-35). The automatic markings feature of the insertion means 5 is a feature included in amended independent claim 13 paragraph c). At least this feature is not present nor suggested in Burns. In fact, Burns teaches away from such automatic marking by limiting his teachings to gender and size as well as manual camera relation rather than automatic adjustment.

The Examiner cites claim 2 of Burns as providing anticipation for the above discussed insertion means. Applicants submit that claim 2 and the Burns specification do not anticipate the above, as at least there is no automatic setting/adjusting of 'points'. Claim 2 discusses use of a template without detailing how the template is arrived at and whether the template can be automatically adjusted. It is assumed that an analogy in the Office Action of template to (instant) 'points' was intended. Burns discusses the template in column 7. In particular, application of Burns is limited to the person being "nearly identical" to the instructor, in gender, age, and body type (height, weight, etc.) (see col. 7, lines 36-50). Further in this passage, the Burns system application is limited to the same lens characteristics and position for both instructor and student. As further regarding adjustments, Burns teaches manual relocation of the camera or application of a zoom objective (see col. 7, lines 57 to 65) as a way of manually adjusting scale. Alternatively, Burns proposes adjusting the image of the instructor by computer graphics. However, Burns does not base his template, automatically, on detected image points of the person as

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discussed above. For at least the above reasons, Applicants submit that Burns does not anticipate the limitations of amended independent claim 13 and accordingly, reconsideration and withdrawal of this rejection is respectfully requested. For at least the above reasons, Applicants further submit that the claims dependent upon independent claim 13 are also not anticipated by Burns, and reconsideration and withdrawal of the rejection of these claims is also requested.

Claim Rejections – 35 USC §103

Claims 25 and 26 were rejected under 35 USC §103 as being unpatentable over Burns (above). The Examiner states that while Burns does not teach of integrating an insertion component in a monitor or camera, such would be obvious to one skilled in the art to minimize the number of components or wire of a system. Applicants respectfully disagree. As detailed above, Burns does not disclose the instant insertion component nor suggest its functionality. Accordingly, absent the base feature, Burns could not suggest to one skilled in the art an appropriate insertion location to the missing feature. While minimizing component or wire numbers has certain advantages in the art, such advantages do not make up for the missing base teachings. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Prior Art Made of Record

In paragraph 26, the Examiner noted prior art references and made them of record. Applicants have reviewed the references and for at least the above reasons submit that the present invention is patentable over them.

Conclusion

A full and complete response to the outstanding Office Action is believed to have been made. The Examiner is welcome to contact the undersigned for any reason. Consideration of the above and allowance of the application in light thereof is respectfully requested. The above amendments do not contain new matter. Attached hereto is a marked-up version of the changes made. The attached pages are captioned “Version with markings to show changes made”.

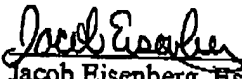
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In the event that the transmittal form is separated from this document and the Patent Office determines that an extension of time and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees in connection with the filing of this document to Deposit Account No. 502464, referencing attorney docket number 1998P03666WOUS. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

For the convenience of the Examiner, the changes made are shown below with deleted text in strikethrough and added text in underline.

In the Specification:

A substitute specification, as required by the Examiner, is attached hereto. No new matter was added.

In the Claims:

13. (Amended) A system for self-monitoring by a moving person of body movements, comprising:

- d) a video camera configured to generate a recorded video image or image sequence;
- e) a monitor operatively coupled to the video camera for outputting the recorded video image or image sequence; and
- f) an insertion component configured to insert at least one moving marker, indicating a predetermined movement or body position, into the video image or image sequence; to detect characteristic points, lines, contours, or equivalent characteristics of the person shown in the recorded video image, or of the displayed area of the person, while the person is not moving; to automatically adapt the marker in a manner dependent on a detection result; and to automatically adapt a size or insertion position of the marker in a manner dependent on the detection results;

wherein the insertion component is configured to detect characteristic points, lines, contours, or equivalent characteristics of the moving person or of a displayed area of the moving person, wherein the moving person is performing a body movement sequence and is shown in the recorded video image sequence, and

wherein the insertion component is configured to automatically adapt the movement speed of the moving marker to the movement speed of the moving person or of a displayed area of the moving person.

Please cancel claim 16.

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17. (Amended) A system as claimed in claim ~~13~~ 16, wherein the insertion component is configured to automatically adapt a size and insertion position of the marker in a manner dependent on the detection result.

19. (Amended) A system as claimed in claim 18, wherein the insertion component is configured to automatically adapt a size and/or insertion position of the marker in a manner dependent on the detection result.

20. (Amended) A system as claimed in claim 13, wherein the system is configured for manually varying size and/or insertion position and/or movement speed of the marker.

22. (Amended) A system as claimed in claim 13, wherein the moving marker comprises on or more point(s) and/or line(s).

23 (Amended) A system as claimed in claim 22, wherein the one or more point(s) and/or line(s) form a stylized person.

Please add the following new claims:

28 (New) A system as claimed in claim 18, wherein the insertion component is configured to automatically adapt a size and insertion position of the marker in a manner dependent on the detection result.

29. (New) A system as claimed in claim 13, wherein the system is configured for manually varying size and insertion position or movement speed of the marker.

30. (New) A system as claimed in claim 13, wherein the system is configured for manually varying size or insertion position and movement speed of the marker.

31. (New) A system as claimed in claim 13, wherein the system is configured for manually varying size and insertion position and movement speed of the marker.

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32. (New) A system as claimed in claim 13, wherein the moving marker comprises on or more point(s) and line(s).
33. (New) A system as claimed in claim 23, wherein the one or more point(s) or line(s) form an equivalent to a stylized person.
34. (New) A system as claimed in claim 32, wherein the one or more point(s) and line(s) form a stylized person.
35. (New) A system as claimed in claim 34, wherein the one or more point(s) and line(s) form an equivalent to a stylized person.